A Randomized, Double-Blind, Placebo-Controlled Study of Topiramate in the Treatment of Tourette Syndrome

Joseph Jankovic, MD[1], JooHi Jimenez-Shahed, MD[1], Lawrence W. Brown, MD[2]
[1]Baylor College of Medicine, Houston, TX; [2]Children’s Hospital of Philadelphia, PA

ABSTRACT

Objective: To investigate the effects of topiramate on Tourette syndrome. Background: Dopamine receptor blocking drugs have been traditionally used to control tics in patients with TS, but these neuroleptics are associated with potential serious side effects. Methods: This is a randomized, double-blind, placebo-controlled, parallel group study designed to investigate the change in severity of TS tic symptoms following treatment with topiramate when compared to placebo. In order to meet the inclusion criteria the subjects must have a DSM-IV diagnosis of TS for at least 3 months, be between 7 and 65 years of age, and weigh over 25kg. Subjects must have a minimum Yale Global Tic Severity Scale (YGTSS) rating scale of 19, and a Clinical Global Impression (CGI) scale severity score of 2.4, and were taking no more than one drug each for tics or TS co-morbidities. Results: There were 29 patients (26 males), mean age 16.5 ± 9.99, randomized to topiramate (mean dose 118 mg) compared to 5.00 ± 9.88 point change in the placebo group (p = 0.0239). There were no significant difference in improvement rates also in the other components of the YGTSS as well as improvements in various secondary measures, including the CGI and premonitory urge CGI. No difference was observed in the frequency of adverse events between the two treatment groups. Conclusion: This double-blind, placebo-controlled trial provides evidence that topiramate may have utility in the treatment of moderately severe TS.

METHODS

Topiramate, as monotherapy or as an add-on to established therapy, is an important addition to the armamentarium in the treatment of TS.

REFERENCES


RESULTS

• There were 29 patients (26 males), mean age 16.5 ± 9.99, randomized to topiramate (N=15) or placebo (N=14) arms (Table 1). Twenty (69%) patients completed the double-blind phase of the study.

RESULTS - continued

The CGI and the premonitory urge CGI improved. No clinically significant differences were observed in the secondary measures, the frequency of adverse events or in the laboratory values between the two treatment groups (Table 3).

Table 3

Table 2

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2130117/

ACKNOWLEDGEMENTS

The investigator-initiated study was supported by grant from Ortho-McNeil Janssen Scientific Affairs, L.L.C. The authors thank P. Weisleder, MD and F. Leigh, MD (Duke University), and T. Nekoda, MD (Carolina Neurological Clinic), C. Hunter, RN and E. Jimenez, MEd (Children’s Hospital of Philadelphia) for their assistance.